

CLAIMS

1. Device for transdermal administration of nicotine in any form, c h a r a c t e -
r i z e d in that it comprises at least one first part providing for basic administration of
nicotine in any form and at least one second part providing for additional administration of
5 nicotine in any form, the at least one second part being activatable by the user.

2. Device for transdermal administration according to claim 1, c h a r a c t e -
r i z e d in that the at least one first part providing for basic administration is/are (a) trans-
dermal patch(es), preferably of the reservoir type, the matrix type, the drug-in-adhesive
type and/or the multi-laminate type, preferably of the drug-in-adhesive type or the reservoir
10 type or combinations of these two types.

3. Device for transdermal administration according to any preceding claim,
c h a r a c t e r i z e d in that the at least one second part providing for additional admini-
stration comprise(s) means for iontophoretic delivery, sonophoresis, jet injection and/or
micro-needles.

15 4. Device for transdermal administration according to claim 3, c h a r a c t e r i -
z e d in that the at least one second part providing for additional administration comprise(s)
means for iontophoretic delivery.

5. Device for transdermal administration according to any preceding claim,
c h a r a c t e r i z e d in that the at least one first part and the at least one second part have
20 at least one feature in common.

6. Device for transdermal administration according to any of claims 1 - 5,
c h a r a c t e r i z e d in that the at least one first part and the at least one second part are
detachable from one another and/or may be individually applied.

7. Device for transdermal administration according to any preceding claim,
25 c h a r a c t e r i z e d in that the form of nicotine is selected from nicotine free base, a
nicotine salt, such as a tartrate, hydrogen tartrate, citrate, maleate or hydrochloride, a
nicotine inclusion complex, such as a complex with a cyclodextrin, a nicotine cation ex-
changer, such as nicotine with polyacrylate or nicotine in any non-covalent binding,
nicotine bound to zeolites, nicotine bound to cellulose or nicotine bound to starch
30 microspheres, and mixtures thereof.

8. Device for transdermal administration according to claim 7, c h a r a c t e r i -
z e d in that the form of nicotine is nicotine free base.

9. Device for transdermal administration according to claim 7 or 8, characterized in that the least one part providing for basic administration of nicotine is for delivery of nicotine in another form than the at least one part providing for additional administration of nicotine

5 10. Device for transdermal administration according to anyone of the preceding claims, characterized in that it delivers nicotine during a predefined period of time, preferably 12, 16, 24 or 48 hours.

11. Device according to anyone of the preceding claims, characterized in that it further comprises one or more stabilisers, preferably selected from the group consisting of antioxidants including vitamin E, i.e. tocopherole, ascorbic acid, sodium pyrosul-
10 fite, butylated hydroxytoluene (BHT), butylated hydroxyanisole, edetic acid and edetate salts, and preservatives including citric acid, tartaric acid, lactic acid, malic acid, acetic acid, benzoic acid, and sorbic acid, preferably vitamin E and/or butylated hydroxytoluene (BHT); and/or

15 that it further comprises one or more substances enhancing transdermal penetration, preferably a compound selected from the group consisting of

- alcohols, such as short chain alcohols, e.g. ethanol and the like, long chain fatty alcohols, e.g. lauryl alcohols, and the like, and polyalcohols, e.g. propylene glycol, glycerin;
- amides, such as amides with long aliphatic chains, or aromatic amides like N,N-diethyl-
20 m-toluamide;
- amino acids;
- azone and azone-like compounds;
- essential oils, i.e. essential oils or constituents thereof, such as l-carvone, l-menthone and the like;
- 25 - fatty acids and fatty acid esters, such as oleic acid, lauric acid and the like, further esters of fatty acids, such as isopropyl myristate, and various esters of lauric acid and of oleic acid;
- macrocyclic compounds, such as cyclopentadecanone and cyclodextrins;
- phospholipid and phosphate compounds, such as phospholipids;
- 30 - 2-pyrrolidone compounds; and
- miscellaneous compounds, like sulphoxides, such as dimethyl sulphoxides, and fatty acid ethers, such as Laureth-9 and polyoxylaurylether; and/or

that it further comprises one or more substances reducing irritant reactions, preferably vitamin E.

12. Device according to anyone of the preceding claims, characterized in that it is occlusive.

5 13. Use of nicotine for the manufacture of a device for aiding in smoking cessation, in temporary smoking abstinence and/or in reducing the urge to smoke or to otherwise use tobacco containing material, and/or for treating conditions suitable for treatment with nicotine, such conditions being selected from the group consisting of Alzheimer's disease, Crohn's disease, Parkinson's disease, Tourette's syndrome, ulcerous colitis and post-
10 smoking-cessation weight control, such a device being according to anyone of claims 1 – 12.

 14. Method for aiding in smoking cessation, in temporary smoking abstinence and/or in reducing the urge to smoke or to otherwise use tobacco containing material, and/or for treating conditions suitable for treatment with nicotine, such conditions being
15 selected from the group consisting of Alzheimer's disease, Crohn's disease, Parkinson's disease, Tourette's syndrome, ulcerous colitis and post-smoking-cessation weight control, by transdermal administration of nicotine with a device according to anyone of claims 1 – 12.

 15. Method for aiding in smoking cessation, in temporary smoking abstinence
20 and/or in reducing the urge to smoke or to otherwise use tobacco containing material, and/or for treating conditions suitable for treatment with nicotine, such conditions being selected from the group consisting of Alzheimer's disease, Crohn's disease, Parkinson's disease, Tourette's syndrome, ulcerous colitis and post-smoking-cessation weight control, by transdermal administration of nicotine with a device according to anyone of claims 1 –
25 12 in combination with means selected from mouth sprays, nasal sprays, transdermal patches, inhaling devices, lozenges, tablets and from parenteral methods, subcutaneous methods, intravenous methods, rectal methods, vaginal methods and transmucousal methods, including use of tobacco.